Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**4.4 Midpoint and Distance Formulas**

1. Find the midpoint of the segment with endpoints:

a. (3,5) and (11,7) b. (-2,1) and (-6,5) c. (-3,5) and (-7,-3)

2. Find the length of the line segment with endpoints:

a. (3,2) and (7,5) b. (1,2) and (7,-6) c. (2,4) and (6,2)

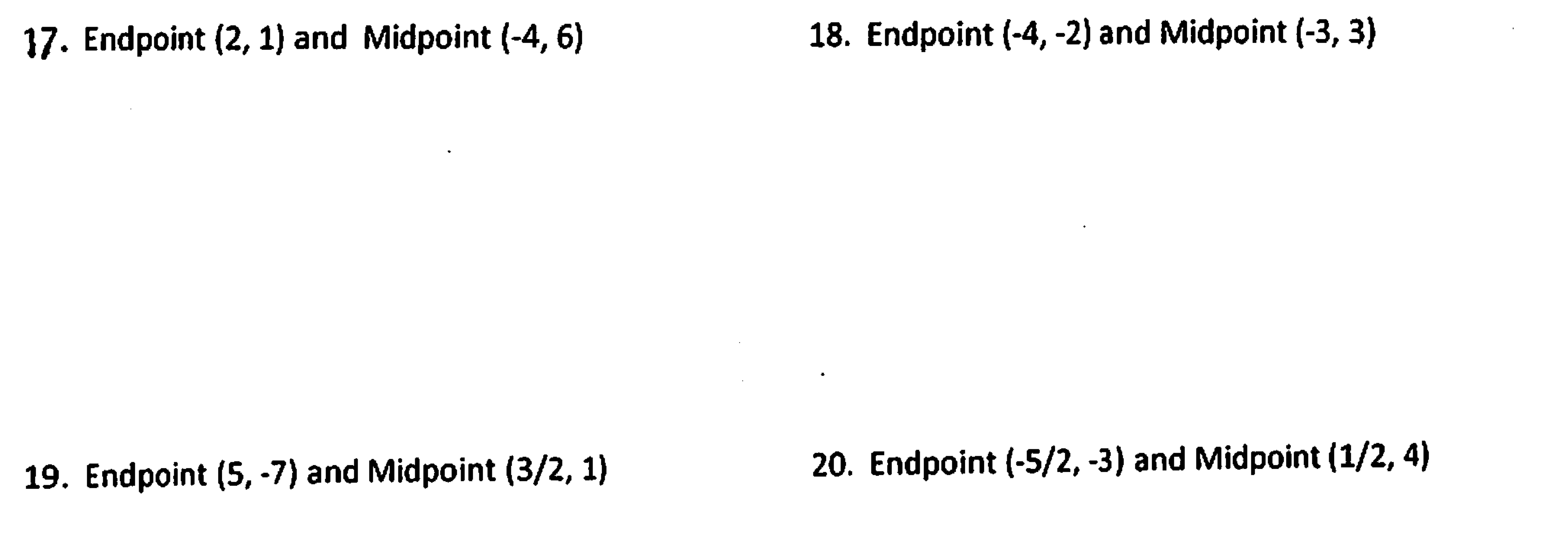
3. A triangle has vertices A(1,1), B(-2,-3), and C(5,-2).

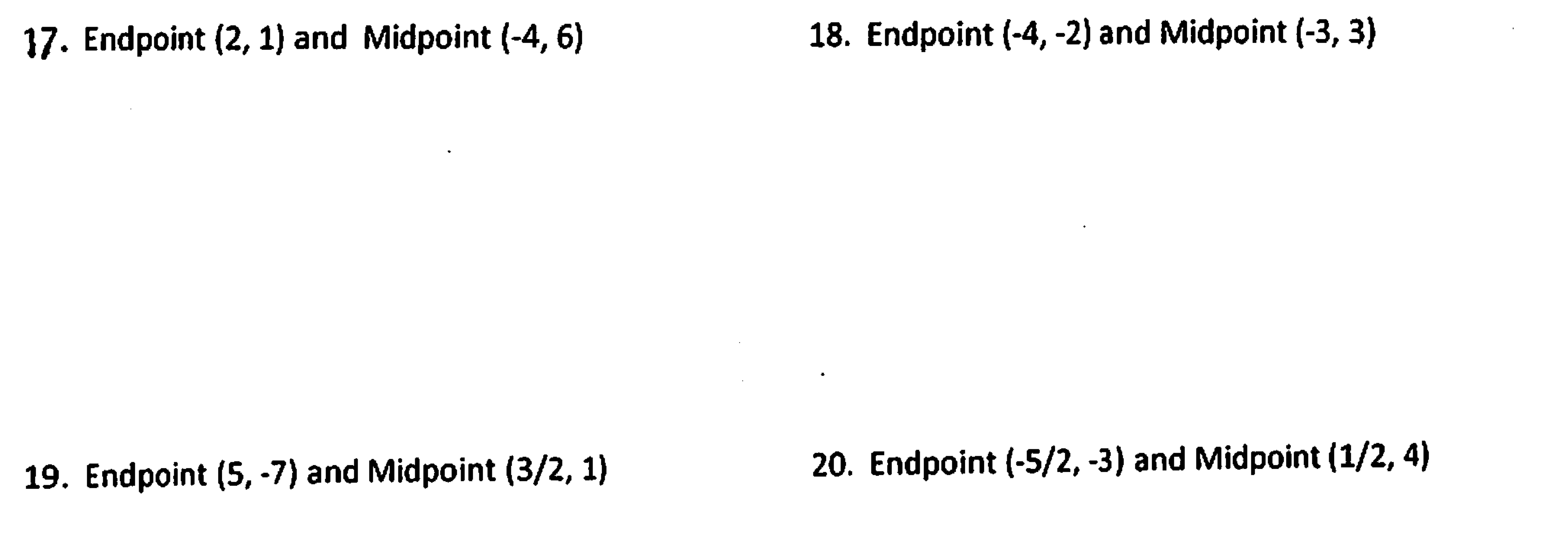
a. Find the length of each side (AB, BC, AC).

b. What kind of triangle is it? **Justify your answer using the sides lengths from Part a.**

(*Remember: equilateral 🡪 3 sides of equal length; isosceles 🡪 two sides of equal length; scalene 🡪 zero sides of equal length*)

Directions: The midpoint and one endpoint are given. Find the coordinates of the other endpoint.





21. Describe how the distance formula and Pythagorean Theorem are related.